

AMENDMENTS TO THE CLAIMS

1-54. (Cancelled)

11 55. (Currently Amended) A method for screening candidate compounds capable of inhibiting HMGI biological activity comprising the steps of:

- a) immobilizing an HMGI protein, or a fragment thereof, on a solid surface, wherein the fragment includes a biologically active region of the HMGI protein;
- b) incubating the HMGI protein, or the fragment thereof, with a candidate compound under conditions which promote optimal interaction;
- c) identifying whether the candidate compound binds to the HMGI protein, or the fragment thereof; and
- d) determining whether the candidate compound modulates HMGI biological activity of regulating expression of downstream target genes from the its ability of the candidate compound to bind to the HMGI protein, or the fragment thereof.

56. (Currently Amended) A method for screening candidate compounds capable of inhibiting HMGI biological activity comprising the steps of:

- a) immobilizing an HMGI protein on a solid surface;
- b) incubating the HMGI protein with a candidate compound under conditions which promote optimal interaction;
- c) identifying whether the candidate compound binds to the HMGI protein; and
- d) determining whether the candidate compound modulates HMGI biological activity of regulating expression of downstream target genes from the its ability of the candidate compound to bind to the HMGI protein.

57. (Currently Amended) A method for screening candidate compounds capable of inhibiting HMGI biological activity which comprises the steps of:

- a) immobilizing an HMGI protein on a solid surface;
- b) incubating the HMGI protein with a candidate compound under conditions which promote optimal interaction;
- c) identifying candidate compounds which bind to the HMGI protein;
- d) transfecting into a cell a DNA construct which contains a reporter gene under the control of an HMGI protein-regulated promoter;
- e) administering to the cell a candidate compound from step (c);
- f) measuring the levels of reporter gene expression in the presence and absence of the candidate compound; and
- g) determining from the levels of reporter gene expression which candidate compounds modulate the HMGI biological activity of regulating expression of downstream target genes.

58. (Currently Amended) The method according to claim 57, 58, or 59, wherein the candidate compound inhibits HMGI biological activity in the amount of at least 10%.

59. (Currently Amended) The method according to claim 57, 58, or 59, wherein the candidate compound inhibits HMGI biological activity in the amount of at least 25%.

60. (Currently Amended) A method for screening candidate compounds capable of inhibiting HMGI biological activity which comprises the steps of:

- a) immobilizing an HMGI protein, or a fragment thereof, on a solid surface, wherein the fragment includes a biologically active region of the HMGI protein;
- b) incubating the HMGI protein, or the fragment thereof, with a candidate compound under conditions which promote optimal interaction;

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- c) identifying candidate compounds which bind to the HMGI protein, or the fragment thereof;
- d) transfecting into a cell a DNA construct which contains a reporter gene under the control of an HMGI protein-regulated promoter;
- e) administering to the cell a candidate compound from step (c);
- f) measuring the levels of reporter gene expression in the presence and absence of the candidate compound; and
- g) determining from the levels of reporter gene expression which candidate compounds modulate the HMGI biological activity of regulating expression of downstream target genes.

61. (Previously Added) The method according to claim 60, wherein the candidate compound inhibits HMGI biological activity in the amount of at least 10%.

62. (Previously Added) The method according to claim 60, wherein the candidate compound inhibits HMGI biological activity in the amount of at least 25%.